This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (Currently Amended): A method for automatically remotely issuing commands to a medical imaging workstation comprising the steps of:

determining a change in a background of an image from a plurality of images;

determining an object in the image,

identifying a gesture according to a trajectory and motion pattern of the object;

determining if the ~~gesture~~ motion pattern corresponds to a valid command; and

if the ~~gesture~~ motion pattern corresponds to a valid command by classifying the motion pattern along windows in time, the workstation automatically executing the command resulting in translational and rotational manipulation of a medical device based on the command.

Claim 2 (Original): The method of claim 1, wherein the step of determining the change in the background further comprises the steps of:

determining a gradient intensity map for the background from a plurality of images;

determining a gradient intensity map for the current image;

determining, for a plurality of pixels, a difference between the gradient intensity map and the gradient intensity map for the background;

determining a comparison between the difference and a threshold; and

determining a pixel to be a background pixel according to the comparison.

Claim 3 (Original): The method of claim 1, wherein the object includes a user's hand.

Claim 4-7 (Canceled).

Claim 8 (Previously Presented): The method of claim 1, wherein the step of identifying a gesture further comprises the steps of:

determining a reference point;

determining a correspondence between the trajectory and the reference point; and

translating the trajectory according to one of a plurality of commands.

Claim 9-17 (Canceled).

Claim 18 (Currently Amended): A program storage device readable by machine, tangibly embodying a program of instructions executable by the machine to perform method steps for automatically remotely issuing commands to a medical imaging workstation, the method steps comprising:

determining a change in a background of an image from a plurality of images;

determining an object in the image,

identifying a gesture according to a trajectory and motion pattern of the object;

determining if the ~~gesture~~ motion pattern corresponds to a valid command by classifying the motion pattern along window in time; and

if the ~~gesture~~ motion pattern corresponds to a valid command, the workstation automatically executing the command resulting in translational and rotational manipulation of a medical device based on the command.

Claim 19 (Original): The method of claim 18, wherein the step of determining the change in the background further comprises the steps of:

determining a gradient intensity map for the background from a plurality of images;

determining a gradient intensity map for the current image;

determining, for a plurality of pixels, a difference between the gradient intensity map and the gradient intensity map for the background;

determining a comparison between the difference and a threshold; and

determining a pixel to be a background pixel according to the comparison.

Claim 20 (Original): The method of claim 18, wherein the object includes a user's hand.

Claim 21-24 (Cancelled).

Claim 25 (Previously Presented): The method of claim 18, wherein the step of identifying a gesture further comprises the steps of:

determining a reference point;

determining a correspondence between the trajectory and the reference point; and

translating the trajectory according to one of a plurality of commands.

Claim 26 (Previously Presented): The method of claim 1 wherein the step of determining an object in the image further comprising the steps of:

obtaining a normalized color representation for a plurality of colors in each image;

determining from training images an estimate of a probability distribution of normalized color values for an object class; and

determining, for each pixel, a likelihood according to an estimated probability density of normalized color values for the object class.

Claim 27 (Previously Presented): The method of claim 1 wherein the step of executing the command further comprises the steps of:

determining the duration of the gesture; and

correlating the duration of the gesture to an intensity and scale in which the command is executed.

Claim 28 (Previously Presented): The method of claim 1 wherein the device is a virtual endoscope.

Claim 29 (Previously Presented): The method of claim 28 wherein the command corresponds to rotation of the virtual endoscope.

Claim 30 (Previously Presented): The method of claim 29 wherein the gesture is rotation of a user's hand.

Claim 31 (Previously Presented): The method of claim 28 wherein the command corresponds to moving the virtual endoscope in a right to left direction.

Claim 32 (Previously Presented): The method of claim 31 wherein the gesture is waving of a user's hand from right to left.

Claim 33 (Previously Presented): The method of claim 27 wherein repetition of a command increases the intensity of the corresponding command response.

Claim 34 (Previously Presented): The method of claim 18, wherein the step of determining the object in the image further comprises the steps of:

obtaining a normalized color representation for a plurality of colors in each image;

determining from training images an estimate of a probability distribution of normalized color values for an object class; and

determining, for each pixel, a likelihood according to an estimated probability density of normalized color values for the object class.

Claim 35 (Previously Presented): The method of claim 1, wherein the step of determining the trajectory of the object through the plurality of images further comprises the steps of:

determining, for each pixel, a temporal likelihood across a plurality of images; and

determining a plurality of moments according to the temporal likelihoods.

Claim 36 (Previously Presented): The method of claim 1 wherein the identified gesture is a valid command if it detects object pixels moving in a predefined pattern.